

REMARKS

Claims 1-7, 11-17, 19-21, 23-26 are pending. Claims 1, 2, 11, 15, 17, 21 and 23 are currently amended. Claims 8 and 9 have been canceled. Claims 25 and 26 have been added.

Claims 1, 5, 6 and 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of U.S. Patent No. 5,834,797 (Yamanaka).

Claim 1 has been amended to recite that the first gate electrode comprises a double gate structure divided below the channel and that the second gate electrode (which is above the first gate electrode) comprises a single gate structure. An example of that arrangement is shown in FIG. 7(b) where the first gate electrode 11 has a double gate structure divided below the channel (part of the active layer 13) and the second gate electrode 70 has a single gate structure. No new matter has been added.

In certain implementations, the arrangement recited in claim 1 helps ensure that a magnetic field from the active layer 13 does not interfere with the reflective display electrode's 19 operation. Neither the AAPA nor the Yamanaka patent, alone or in combination, discloses or suggests the features now recited in claim 1. Indeed, the AAPA display device does not even mention a second gate electrode that is above the illustrated gate electrodes 11. (*See, e.g.*, FIG. 9) Nor does the Yamanaka patent disclose the features now recited in claim 1.

The Yamanaka patent discloses a transistor with a first gate electrode G1 and a second gate electrode G2. (*See*, FIG. 8A, 8B) However, the first gate electrode G1 does not have a double gate structure, as is recited in claim 1. Instead, the first gate electrode G1 has a single gate structure. It is clear then, that the first gate electrode G1 also is not divided below a channel, as is also recited in claim 1.

Claim 1 should be allowable for at least the foregoing reasons.

Claims 5, 6 and 11-13 depend from claim 1 and, therefore, should be allowable for at least the same reasons as claim 1.

Claims 21 and 23 also were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of the Yamanaka patent.

Claim 21 has been amended to recite features similar to those now recited in claim 1. Therefore, claim 21 should be allowable for at least the same reasons as discussed above with reference to claim 1.

Claim 23 depends from claim 21 and, therefore, should be allowable for at least the same reasons as claim 21.

Claims 2-4 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of U.S. Patent No. 5,702,963 (Vu et al.)

Claim 2 has been amended in a manner similar to claim 1. Specifically, claim 2 now recites that the first gate electrode has a double gate structure divided below the channel and that the second gate electrode has a single gate structure. As discussed above with reference to claim 1, the AAPA does not disclose or suggest those features. Nor does the Vu et al. patent disclose or suggest those features.

The Vu et al. patent discloses a dual gate metal oxide semiconductor field effect transistor (MOSFET) having first and second gates G1 and G2 that are connected to each other by a conductor. (*See*, FIG. 15G) However, neither the first or second gates (G1 or G2) have a double gate structure, as is featured in claim 2. Indeed, both the first and second gate G1 and G2 have single gate structures.

Claim 2 should be allowable for at least the foregoing reasons.

Claims 3, 4 and 15 depend from claim 2 and, therefore, should be allowable for at least the same reasons as claim 2.

Claims 17 and 19 also were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of the Vu et al. patent.

Claim 17 has been amended to recite features similar to those now recited in claim 2. Therefore, claim 17 should be allowable for at least the same reasons as discussed above with reference to claim 2.

Claim 19 depends from claim 17 and, therefore, should be allowable for at least the same reasons as claim 17.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of the Yamanaka patent and further in view of U.S. Patent No. 6,100,954 (Kim et al.)

Claim 7 depends from claim 1, which recites a first gate electrode with a double gate structure and a second gate electrode (above the first gate electrode) with a single gate structure. As discussed above with reference to claim 1, neither the AAPA nor the Yamanaka patent discloses or suggests that feature. Nor does the Kim et al. patent disclose or suggest that feature.

The Kim et al. patent discloses a thin film transistor (TFT) for a liquid crystal display (*see, e.g.*, FIG. 14A-14G) that includes a gate electrode 113. Kim et al.'s TFT does not include a second gate electrode, as featured in claim 1. Nor does Kim et al.'s gate electrode 113 have a double gate structure, as is featured in claim 1.

Claim 7 should be allowable for at least the foregoing reasons.

Claims 14 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of the Yamanaka patent and further in view of U.S. Patent No. 5,550,066 (Tang et al.)

Claims 14 and 24 depend from claims 1 and 21, respectively. Claims 1 and 21 each recite a first gate electrode with a double gate structure divided below a channel and a second gate electrode (above the first gate electrode) with a single gate structure. As discussed above, neither the AAPA nor the Yamanaka patent discloses or suggests those features. Nor does the Tang et al. patent disclose or suggest those features.

The Tang et al. patent discloses a thin film transistor (TFT) electroluminescent device that includes a single n⁺ poly-Si gate 3KA. (*See, e.g.*, FIG. 8) Tang et al.'s TFT does not include a second gate electrode, as featured in claim 1. Nor does Tang et al.'s gate electrode 113 have a double gate structure, as is featured in claim 1.

Claims 14 and 24 should be allowable for at least the foregoing reasons.

Claims 16 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of the Vu et al. patent and further in view of the Tang et al. patent.

Claims 16 and 20 depend from claims 2 and 17, respectively. Claims 2 and 17 each recite a first gate electrode with a double gate structure divided below a channel and a second gate electrode (above the first gate electrode) with a single gate structure. For reasons discussed in detail above, none of the cited references discloses or suggests those features.

Claims 16 and 20 should be allowable for at least the foregoing reasons.

New claims 25 and 26 depend from claim 1 and, therefore, should be allowable for at least the same reasons as claim 1. Claims 25 and 26 also should be allowable for the following additional reasons.

Claim 25 recites that the double gate structure of the first gate electrode includes two substantially parallel members that extend from a gate signal line. Support for new claim 25 can be found, for example, in FIG. 7(b) where the double gate structure of the first gate electrode 11 includes two substantially parallel members that extend from a gate signal line 51. No new matter has been added. None of the cited references discloses or suggests the features recited in claim 25.

Claim 26 recites that the single gate structure of the second gate electrode includes a single element that covers both of the first gate electrode's substantially parallel members. Support for new claim 26 can be found, for example, in FIG. 7(b) where the single gate structure of the second gate electrode 70 includes a single element that covers both of the first gate

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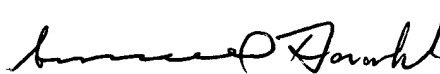
electrode's 11 substantially parallel members. No new matter has been added. None of the cited references discloses or suggests the features recited in claim 26.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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